CLAIMS:

1. A control device for electric power steering apparatus which adopts a vector control system for applying an assist force of a motor to a steering system, characterized in that a phase delay according to an angular velocity is obtained, a corrected electric angle is calculated by adding the phase delay to an electric angle, and generation of a current command value in the vector control is compensated based on the corrected electric angle.

2. A control device for electric power steering apparatus according to claim 1, wherein the phase delay includes a response delay of an electric current control.

3. A control device for electric power steering apparatus according to claim 1, wherein the phase delay is obtained by a linear function of an offset and a gain.

4. A control device for electric power steering apparatus according to claim 1 or 2, wherein the corrected electric angle is limited to 0° to 360°.

5. A control device for electric power steering apparatus which adopts a vector control system for applying an assist force of a motor to a steering system, characterized in that a first phase delay according to an angular velocity is obtained, a first

corrected electric angle is calculated by adding the first phase delay to an electric angle, generation of a current command value in the vector control is compensated based on the first corrected electric angle, a second phase delay according to the angular velocity is obtained, a second corrected electric angle is calculated by adding the second phase delay to the electric angle, and a back EMF in the vector control is compensated based on the second corrected electric angle.

6. A control device for electric power steering apparatus according to claim 5, wherein the first phase delay and the second phase delay include a response delay of electric current control.

7. A control device for electric power steering apparatus according to claim 5, wherein the first phase delay and the second phase delay are obtained by a linear function of an offset and a gain.

8. A control device for electric power steering apparatus according to claim 5 or 6, wherein the first corrected electric angle and the second corrected electric angle are limited to 0° to 360°.